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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,368	07/26/2001	Olivier Gautheron	Q65436	6916

7590 05/10/2004

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EXAMINER

NEGASH, KINFE MICHAEL

ART UNIT	PAPER NUMBER
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2633

DATE MAILED: 05/10/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,368

Applicant(s)

GAUTHERON ET AL.

Examiner

Kinfe-Michael Negash

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. Figures 1-2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: numeral 19(see page 7, lines 16 and 18; and page 8, lines 2 and 21). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to because the direction of the arrow corresponding to element 6 in Fig. 1 is reversed, and it should be directed towards element 6. A proposed drawing correction or corrected drawings are required in reply to the Office

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action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Claims 1-10 are objected to because of the following informalities: In claims 1-3,5, and 7-8, reference is made to the transmission system 100 of Fig. 1 which is a prior art. Since the invention appears to be an improvement of the prior art transmission system, the claims should be constructed in Jepson claim format. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-2,4-7, and 9-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Beller et al.,(U.S. Patent No. 6,067,150).

As to claims 1-2, Beller et al., at column 2, lines 24-33, teach a method for determining wavelength dependent information in an optical transmission system by launching or providing optical or light signals at a plurality of different wavelengths in to

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the optical link(i.e. the transmission system), and receiving a backscattered and/or reflected signal from the optical transmission system or structure, and determining the wavelength dependent information about the optical component or transmission system by processing the backscattered and/or reflected signal versus time as measured for the plurality of light/optical signals at different wavelengths. Thus, claims 1-2 are clearly anticipated.

Regarding claims 4 , the reference meets the subject matter of the claim(note column 4, lines 62-64; and element 550).

With regard to claims 5 and 7, Beller et al., in Fig. 2 for example, and column 2, lines 12-23, teach a system for determining wavelength dependent information in an optical transmission system comprising a transmitter(110); and a receiver(10); and a processing device(130). Thus, claims 1 and 7 are anticipated.

Concerning claim 6, the reference meets the subject matter of the claims(note elements 110,510).

As to claim 9, the same remarks pertaining to claim 4 apply here also.

Regarding claim 10, the reference is considered to meet the subject matter of the claim since the optical components disclosed in the reference are used in an optical transmission system(note column 3, lines 44-46).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beller et al.,(U.S. Patent No. 6,067,150).

As to claims 3 and 8, Beller et al., disclose the subject matter of the claims except for the determination of the relative gain profile versus wavelength for each amplifier. Nevertheless, since Beller et al., at column 3, lines 51-58 disclose the use of optical amplifiers(i.e. as a component) in the optical structure 50, it would have been

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obvious to a person of ordinary skill in the art at the time the invention was made to modify or program the processor 130 in Beller et al., to determine a relative gain profile versus wavelength for each of the optical amplifiers (if not already done so) in order to realize the advantages associated with wavelength dependent information. Therefore, claims 3 and 8 are rejected.

Conclusion


12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The art of record are cited for their teachings of coherent OTDR in an optical transmission system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kinfé-Michael Negash whose telephone number is (703)305-4932. The examiner can normally be reached on 8:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703)305-4729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kinfe-Michael Negash
Primary Examiner
Art Unit 2633

KN
April 30, 2004